

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences**

REPLY BRIEF

Application No.: 10/559,095
Confirmation No.: 1462
First-Named Inventor: Marianne HOFMANN
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Art Unit: 3765
Examiner: Hoey, Alissa L.
Attorney Docket No.: 008312-000006
Title: HOOD FOR PROTECTIVE GARMENT

STATUS OF CLAIMS

1. Canceled
2. Canceled
3. Canceled
4. Canceled
5. Canceled
6. Canceled
7. Canceled
8. Canceled
9. Canceled
10. Canceled
11. Canceled
12. Canceled
13. Canceled
14. Canceled
15. Canceled
16. Canceled
17. Canceled
18. Canceled
19. Canceled
20. Canceled
21. Canceled

- 22. Rejected
- 23. Canceled
- 24. Canceled
- 25. Rejected
- 26. Rejected
- 27. Rejected
- 28. Rejected
- 29. Canceled
- 30. Canceled
- 31. Rejected
- 32. Rejected
- 33. Rejected
- 34. Rejected
- 35. Rejected
- 36. Rejected
- 37. Rejected
- 38. Rejected
- 39. Rejected
- 40. Rejected
- 41. Canceled

The claims on appeal are claims 22, 25-28, and 31-40.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

First Ground of Rejection to be Reviewed on Appeal.

Whether claims 22, 27, 28, 32, 35, 37, 39, and 40 are unpatentable under 35 U.S.C. §102(b) as being anticipated by Pampuch (US 4,174,710).

Second Ground of Rejection to be Reviewed on Appeal.

Whether claims 25, 26, 31, 33, and 34 are unpatentable under 35 U.S.C. §103(a) over Pampuch (US 4,174,710).

Third Ground of Rejection to be Reviewed on Appeal.

Whether claims 36 and 38 are unpatentable under 35 U.S.C. §103(a) over Pampuch (US 4,174,710) in view of Wood (GB 2078491).

ARGUMENT

The following is Appellant's reply to the Examiner's "Response to Argument" which begins on page 11 of the Examiner's Answer. Appellant has elected to use the same section headings as used by the Examiner for its reply arguments.

I-A) Appellant argues that Pampuch fails to teach the laterally spaced ribs being sealing elements.

One question for the Board to consider is what inferences, if any, can be drawn from the very limited portion of Pampuch (Column 2, lines 12-15) which constitutes the entirety of the Examiner's "support" for the rejection of claim 22. This referenced portion of the Pampuch reference is set forth below:

An additional form of construction made in accordance with this invention is one in which the inside surface of the elastic band is also provided with surrounding laterally spaced ribs.

One issue to be addressed is that the specific phrasing refers to "an additional form of construction" which would indicate another or second embodiment and there is nothing disclosed which would indicate the entirety of the structural elements of this other embodiment. Further, there is nothing in this cited passage of Pampuch which would indicate what the laterally spaced ribs are to be used for in this other embodiment nor is there anything to suggest the desired or appropriate material for these laterally spaced ribs. If, as Appellant believes, these referenced laterally spaced ribs are only used for a mechanical interfit so as to prevent pull off, this could be achieved by a relatively

loose interfit of a rib within a groove and this type of interfit would not necessarily provide any sealing. Nothing in the cited passage of Pampuch refers to any "sealing".

There is nothing in the cited passage of Pampuch, as set forth above, to indicate or suggest that these laterally spaced ribs "would create a plurality of peripheral sealing elements", as the Examiner contends. Since these laterally spaced ribs could simply provide a loose mechanical interfit so as to prevent pull off, the Examiner's contention is not supported by the Pampuch reference and would thus seem to be simply the result of hindsight knowledge and attempting to try and make a marginal prior art reference, at best, "fit" the recited structure of claim 22.

The Examiner also characterized thickened portion 5a and peripheral groove 5c as being a plurality of peripheral sealing elements. The Pampuch reference refers to the connection between the mask and suit as being "gas-tight" (see Column 1, lines 29-32). However, the only structure which is described as providing this capability is where "the smooth inside surface of the elastic band overlaps and engages ribs 2 of the mask with a certain contact pressure" (Column 2, lines 3-5). The Examiner seems to have totally ignored this very clear disclosure of how "sealing" is provided in the Pampuch structure. Instead of accepting what is clearly described in the cited prior art reference, the Examiner has elected to speculate. Contrary to what is clearly described in Pampuch, the Examiner is treating thickened portion 5a and groove 5c as sealing elements. However, the Pampuch reference never describes either feature as providing "sealing". In further support of Appellant's position on this point, consider for example Column 1, lines 55-68 through Column 2, lines 1-3, whereat the following descriptive phrases are presented:

1. . . . there is an elastic band 5 that serves as the connection or joint between them.
2. The groove is of such size that it can receive the retainer rib 3.
3. As a result, rib 3 is securely held in groove 5c to connect the suit and mask

The Examiner has crafted a descriptive scenario to try and extend the actual disclosure of Pampuch into something which more clearly corresponds to claim 22. The problem with this creative effort is that the "facts" fail to provide the support which the Examiner requires for a proper rejection and for a valid argument in support of that rejection. Pampuch never discloses the use of thickened portion 5a and peripheral groove 5c as sealing elements. Instead, these portions, along with rib 3 "connect the suit and mask". The sealing is provided by the "smooth inside surface of the elastic band" which "overlaps and engages ribs 2 of the mask with a certain contact pressure". The cited Pampuch reference seems to be clear as to its intended sealing structure and methodology and thus the Board should question why these "facts" are ignored and, instead, why we are discussing something of a fiction in terms of thickened portion 5a and peripheral groove 5c.

I-B) Appellant argues that Pampuch fails to teach the peripheral sealing elements conjoined to the inner face of the peripheral elastic hem.

The Examiner now opines on her subjective interpretation of "conjoined" and the Board can determine the proper scope and meaning of this term, consistent with the

claims and the specification. The Board should also consider the scope and content of claim 22 in view of what is recited in claim 26.

One issue is whether the recited peripheral sealing elements are unitarily molded as a part of the elastic hem or are provided as separate elements which must be "conjoined". As for elements 5a and 5c of Pampuch, these are integrally molded and are not conjoined. As for the "mysterious" laterally spaced ribs suggested by Column 2, lines 12-15 of Pampuch, there is no indication of whether these ribs are unitarily molded or are separate elements which must be conjoined to band 5. If the ribs or elements are not unitarily molded as a part of band 5, but are instead provided as separate elements and conjoined, there is nothing in Pampuch which provides any teaching of the likely material for these separate rib elements. If these ribs are unitarily molded, the material for these ribs or elements would presumably be the same as that of band 5. Otherwise, we are all engaged in guesswork regarding a possible rib material due to the sparse and somewhat incomplete nature of the Pampuch disclosure.

The Examiner is also now contending that ribs 2 and 2a of the respirator mask 1 have somehow become transformed into sealing elements which are a part of elastic band 5. The Examiner once again cites the limited portion of Pampuch, referencing Column 2, lines 12-15, as support for this creation. However, as should be clear to the Board, this cited portion of Pampuch is totally void of any such support and there is nothing to even remotely suggest that ribs 2 and 2a of the respirator mask are the same as the laterally spaced ribs referred to in Column 2, lines 12-15. If the Examiner believes that the ribs referred to in Column 2, line 15, are ribs 2 and 2a of the respirator mask, then some support for this conclusion should be offered.

II-III) Appellant argues that Pampuch fails to teach the peripheral sealing elements comprised of elastofibers.

The Examiner's statement that Pampuch teaches an elastic band 5 with ribs 2, 2a is in error. Ribs 2 and 2a are a part of the mask. The only basis to argue that the laterally spaced ribs of the second Pampuch embodiment are made of an elastomer is to also limit the Pampuch disclosure to the fact that these laterally spaced ribs are unitarily molded as a part of band 5. Band 5 is the only elastomer referenced in Pampuch and the only way to infer that the laterally spaced ribs are also an elastomer is to have those ribs unitarily molded as part of band 5. However, not only is the referenced passage of Pampuch completely silent as to this aspect of the laterally spaced ribs, being unitarily molded as a part of band 5 is not "conjoined" as recited in claim 22. As recited in claim 22, the peripheral sealing elements which are conjoined to the inner face of the peripheral elastic hem are separate elements which are secured to that elastic hem by one of the methodologies referenced in Claim 26. Nothing in Pampuch indicates any material for these laterally spaced ribs if these laterally spaced ribs are interpreted as being separate elements which are secured to band 5. Either way, Pampuch does not teach that these laterally spaced ribs are sealing elements and Pampuch does not teach that these laterally spaced ribs are formed of elastofibers.

Claim 22 recites that the peripheral sealing elements which are conjoined (i.e., secured) to the inner face of the peripheral elastic hem are comprised of elastofibers. Clearly there is nothing disclosed in or even implied by Pampuch which one would ever interpret as disclosing "elastofibers". There are two aspects here and the Examiner has

decided out of necessity to only look at the "elasto" portion and ignore the "fibers" portion. According to Appellant's disclosure, specific "fibers" are used and these are understood as being discrete elongated filaments, similar to lengths of thread.

Pampuch only discloses an elastic band 5 and if the laterally spaced ribs of Column 2, lines 12-15, are unitarily molded as part of elastic band 5, then at most all we have is an elastic band and an elastomer for the laterally spaced ribs. However, we have nothing which even remotely suggests that there are "fibers" anywhere in the Pampuch structure. By definition, a "band" is a relatively flat object with a minimal height and thickness. This is completely different from a discrete elongated piece, similar to a length of thread. Appellant's specification is quite clear as to what should be understood from the use of "elastofibers" in claim 22, as well as in claims 39 and 40.

Further, elastofibers exhibit well-defined properties with respect to their elasticity (extremely extensible). Considering that Pampuch is completely silent as to any specific material or material properties for elastic band 5, there is nothing in Pampuch which anticipates or renders obvious the use of "elastofibers". Band 5 may satisfy the "elasto" part, but nothing more. Considering that nothing is offered as far as a possible material for the laterally spaced ribs, not even "elastic", nothing can be assumed or inferred. These laterally spaced ribs, what the Examiner wants to re-name as peripheral sealing elements, cannot be assumed to be or comprise "elastofibers".

IV) Appellant argues that Pampuch fails to teach "a substantially parallel arrangement" between the laterally spaced ribs.

The Examiner contends that the following text from Pampuch says that ribs 2a and 3 of the respirator mask 1 are "parallel":

The arrangement of the laterally spaced ribs is such that they form a sort of labyrinth. Spaced inwardly from, or in front of, rib 2a is an additional rib 3 that surrounds the mask parallel to rib 2a.

While this is true, what possible relevance does this have with regard to sealing elements which are part of the recited peripheral elastic hem and which provide close out abutment against and around the respirator? Why is the Examiner focusing on the parallelism of respirator mask ribs when claim 22 is directed to the parallelism of peripheral sealing elements which are a conjoined part of the elastic hem? To say the least, the Examiner's continuing references to ribs 2 and 2a as well to ribs 2a and 3 of the respirator mask is confusing. The recited peripheral sealing elements are a conjoined part of the elastic hem, not a part of the respirator mask. Further, claim 22 recites that these peripheral sealing elements are constructed and arranged for close out abutment against and around the respirator. This clearly shows that these peripheral sealing elements cannot be a part of the respirator mask, but instead a conjoined part of the elastic hem.

V) Appellant argues that Pampuch fails to teach the limitation of claim 26, detailing that the sealing elements are joined to the hem by stitching, interweaving, adhering, stapling and welding.

Claim 22 recites that the peripheral sealing elements are conjoined to the elastic hem. Appellant has made it clear that "conjoined" is the securing of separate elements to

the elastic hem. Hem 26 offers some options for that securing methodology. Even if the specification does not contain any disclosure of the critical nature of the recited attaching methods, the specification is still quite clear that the peripheral sealing elements are not unitarily molded as part of the elastic hem, but instead are secured thereto as separate elements.

The Examiner, for some incomprehensible reason, has elected to start discussing how the Pampuch band 5 might be attached to the protective suit 4. Even though Pampuch is inconclusive on how or if this is being done, what relevance could it possibly have to the use of a securing methodology for securing separate peripheral sealing elements to the inner face of the elastic hem?

VI and VII) Appellant argues that Pampuch fails to teach the limitation of claim 33, detailing the sealing elements having a relative extensibility of not less than 30%; Appellant argues that Pampuch fails to teach the limitation of claim 34, detailing the sealing elements having a modulus of elasticity in stretching in a specified range.

The Examiner elects to treat the limitations of claim 33 and 34 as being obvious and something which a person of ordinary skill in the art would be able to determine through routine experimentation. Whether or not this might be true, the starting point is to determine the material for the elements of Pampuch (i.e., the laterally spaced ribs) which the Examiner contends are the recited peripheral sealing elements. In the rejection of claim 26, the Examiner conceded that these laterally spaced ribs are going to be conjoined (secured) to the band 5 of Pampuch by one of the claim 26 methodologies. As such, there is nothing anywhere in Pampuch to even remotely hint at the material selection for these laterally spaced ribs. Since these ribs are more likely than not to be

used for a loose mechanical connection, there is stronger evidence that the material is not an elastomer. Even if Appellant's values and ranges might be obvious for an elastomer, if the cited prior art reference does not disclose an elastomer, then merely reciting the property of extensibility (claim 33) and the property of having a modulus of elasticity (claim 34) is sufficient to distinguish the claimed invention from the cited prior art.

VIII) Appellant argues that Pampuch in view of Wood fails to teach the liner of claims 36 and 38.

The Examiner contends that page 1, lines 58-65 of the Wood reference discloses a material construction for the inserts 7 which is water-vapor pervious, but gas-impervious. Perhaps based more on what the Examiner wishes Wood discloses rather than the reality, lines 58-65 do not disclose anything more than a charcoal impregnated foam or cloth with a layer of cotton to absorb perspiration. This disclosure does not equate to what is recited in claims 36 and 38.

Based in part on the omissions, inconsistencies, and deficiencies in the Examiner's Answer and based on the content of claims 22, 25-28, and 31-40 relative to the Pampuch and Wood references, claims 22, 25-28, and 31-40 are in condition for allowance.

Respectfully submitted,

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Page 12 of 12